# Aerospray® Gram Reagent C, Crystal Violet

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 1 Identification

### 1.1. Product identifier

Product form : Mixture
Product name : Aerospray® Gram Reagent C, Crystal Violet
Product code : SS-041C, or SS-141C diluted with water

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemical
Recommended use : Professional use only

### 1.4. Supplier's details

ELITechGroup Inc.
370 West 1700 South
Logan, UT, Cache, 84321
USA
T +1 (435) 752-6011 - F +1 (435) 752-4127
qara_ebs@elitechgroup.com - www.elitechgroup.com

### 1.5. Emergency phone number

Emergency number : Contact your distributor or poison control center in your country.
InfoTrac Emergency Response: Calls within the USA, phone: 1-800-535-5053. Calls outside the USA, phone: +1 352-323-3500 (call collect)
Customer ID: #90104 (NOTE: this number is required when a customer calls into either phone number above).

## SECTION 2 Hazard Identification

### 2.1. Classification of the substance or mixture

#### GHS US classification

Carcinogenicity, Category 1A H350 May cause cancer.
Full text of H statements : see section 16

### 2.2. Label elements

#### GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H350 - May cause cancer.
Precautionary statements (GHS US) : P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing, eye protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P501 - Dispose of contents and/or container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| ethanol | CAS-No.: 64-17-5 | < 5 | Flam. Liq. 2, H225<br>Carc. 1A, H350 |
| Crystal violet | CAS-No.: 548-62-9 | < 1 | Acute Tox. 4 (Oral), H302<br>Eye Dam. 1, H318<br>Carc. 2, H351 |
| methanol | CAS-No.: 67-56-1 | < 0.1 | Flam. Liq. 2, H225<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331<br>Acute Tox. 3 (Inhalation:vapour), H331<br>STOT SE 1, H370 |
| formaldehyde | CAS-No.: 50-00-0 | < 0.1 | Flam. Gas 1, H220<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331<br>Acute Tox. 2 (Inhalation:gas), H330<br>Skin Sens. 1A, H317<br>Muta. 2, H341<br>Carc. 1A, H350 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : May cause an allergic skin reaction. May stain the skin. None under normal conditions.

Symptoms/effects after eye contact : None under normal conditions.

Symptoms/effects after ingestion : None under normal conditions.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

#### For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene.

#### For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.

| | | |
|---|---|---|
| Environmental precautions | : | Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Notify authorities if product enters sewers or public waters. |

### 6.2. Methods and materials for containment and cleaning up

| | | |
|---|---|---|
| For containment | : | Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : | Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters. |
| Other information | : | Dispose of materials or solid residues at an authorized site. |

See Heading 8,Exposure controls and personal protection,For further information refer to section 13

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

| | | |
|---|---|---|
| Precautions for safe handling | : | Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. |
| Hygiene measures | : | Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| Additional hazards when processed | : | Not expected to present a significant hazard under anticipated conditions of normal use. |

### 7.2. Conditions for safe storage, including incompatibilities

| | | |
|---|---|---|
| Technical measures | : | Keep in a cool, well-ventilated place away from heat. |
| Storage conditions | : | Keep away from ignition sources. Protect from sunlight. Keep container closed when not in use. Keep only in original container. |
| Incompatible products | : | Strong bases. Strong acids. |
| Incompatible materials | : | Sources of ignition. Direct sunlight. |
| Packaging materials | : | Store always product in container of same material as original container. |

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

| ethanol (64-17-5) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Ethanol |
| ACGIH OEL STEL | 1880 mg/m³ |
| | 1000 ppm |
| Remark (ACGIH) | URT irr |
| Regulatory reference | ACGIH 2025 |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Ethyl alcohol (Ethanol) |

| ethanol (64-17-5) | |
|---|---|
| OSHA PEL TWA | 1900 mg/m³ |
| | 1000 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL (TWA) | 1900 mg/m³ |
| | 1000 ppm |

| methanol (67-56-1) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Methanol |
| ACGIH OEL TWA | 262 mg/m³ |
| | 200 ppm |
| ACGIH OEL STEL | 328 mg/m³ |
| | 250 ppm |
| Remark (ACGIH) | Headache; eye dam; dizziness; nausea |
| Regulatory reference | ACGIH 2025 |
| **USA - ACGIH - Biological Exposure Indices** | |
| Local name | Methanol |
| BEI (BLV) | 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns |
| Regulatory reference | ACGIH 2025 |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Methyl alcohol |
| OSHA PEL TWA | 260 mg/m³ |
| | 200 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

| formaldehyde (50-00-0) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Formaldehyde |
| ACGIH OEL TWA | 0.12 mg/m³ |
| | 0.1 ppm |
| ACGIH OEL STEL | 0.37 mg/m³ |
| | 0.3 ppm |
| Remark (ACGIH) | URT & eye irr |
| Regulatory reference | ACGIH 2025 |

## 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment

**Personal protective equipment:**
Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

| **Materials for protective clothing:** |
|---|
| Wear protective clothing |

| **Hand protection:** | | | | |
|---|---|---|---|---|
| Wear protective gloves | | | | |
| **Type** | **Material** | **Permeation** | **Thickness (mm)** | **Penetration** |
| Disposable gloves | Latex, Nitrile rubber (NBR) | 3 (> 60 minutes) | 0.1 - 0.15 | |

| **Eye protection:** |
|---|
| Chemical goggles or safety glasses |

| **Skin and body protection:** |
|---|
| Wear suitable protective clothing |

| **Respiratory protection:** |
|---|
| Wear appropriate mask. Wear suitable respiratory equipment in case of insufficient ventilation |

**Personal protective equipment symbol(s):**

**Other information:**
Do not eat, drink or smoke during use.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Color | : | Purple |
| Odor | : | Odorless |
| Odor threshold | : | No data available |
| pH | : | ≈ 4.3 (4 – 4.5) |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | > 93.3 °C |
| Flammability (solid, gas) | : | Non flammable. |
| Vapor pressure | : | No data available |
| Relative vapor density at 20°C | : | No data available |
| Relative density | : | No data available |
| Density | : | 0.9958 g/cm³ |
| Solubility | : | Water: No data available |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosion limits | : | No data available |

Particle characteristics : No data available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

| Crystal violet (548-62-9) | |
|---|---|
| LD50 oral rat | 420 mg/kg (Rat, Experimental value, Oral) |
| LD50 dermal rabbit | > 2000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Experimental value, Dermal) |
| ATE US (oral) | 420 mg/kg body weight |

| ethanol (64-17-5) | |
|---|---|
| LD50 oral rat | 7060 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 oral | 8300 mg/kg body weight Animal: mouse |
| LC50 Inhalation - Rat | 20000 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 7060 mg/kg body weight |
| ATE US (vapors) | 20000 mg/l/4h |
| ATE US (dust, mist) | 20000 mg/l/4h |

| methanol (67-56-1) | |
|---|---|
| LD50 oral rat | 1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, 15-35 % aqueous solution, Oral, 7 day(s)) |
| LD50 oral | 101.01 mg/kg (Acute toxicity, Oral, Estimate) |
| LC50 Inhalation - Rat | 3.03 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours)) |
| ATE US (oral) | 101.01 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| ATE US (gases) | 700 ppmV/4h |
| ATE US (vapors) | 3.03 mg/l/4h |
| ATE US (dust, mist) | 3.03 mg/l/4h |

| formaldehyde (50-00-0) | |
|---|---|
| LD50 oral rat | 800 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, 2 % aqueous solution, Oral, 14 day(s)) |
| ATE US (oral) | 800 mg/kg body weight |
| ATE US (dermal) | 300 mg/kg body weight |
| ATE US (gases) | 100 ppmV/4h |
| ATE US (vapors) | 3 mg/l/4h |
| ATE US (dust, mist) | 0.5 mg/l/4h |

Skin corrosion/irritation : Not classified
pH: ≈ 4.3 (4 – 4.5)

| Crystal violet (548-62-9) | |
|---|---|
| pH | 3.07 (5 - 10 %, 27 °C, OECD 105: Water Solubility) |

| ethanol (64-17-5) | |
|---|---|
| pH | 7 (789 g/l, 20 °C) |

| methanol (67-56-1) | |
|---|---|
| pH | No data available in the literature |

| formaldehyde (50-00-0) | |
|---|---|
| pH | 2.8 – 4 (37 %) |

Serious eye damage/irritation : Not classified
pH: ≈ 4.3 (4 – 4.5)

| Crystal violet (548-62-9) | |
|---|---|
| pH | 3.07 (5 - 10 %, 27 °C, OECD 105: Water Solubility) |

| ethanol (64-17-5) | |
|---|---|
| pH | 7 (789 g/l, 20 °C) |

| methanol (67-56-1) | |
|---|---|
| pH | No data available in the literature |

| formaldehyde (50-00-0) | |
|---|---|
| pH | 2.8 – 4 (37 %) |

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : May cause cancer.

| ethanol (64-17-5) | |
|---|---|
| IARC group | 1 - Carcinogenic to humans |

| formaldehyde (50-00-0) | |
|---|---|
| IARC group | 1 - Carcinogenic to humans |
| National Toxicology Program (NTP) Status | Known Human Carcinogens |

Reproductive toxicity : Not classified

| methanol (67-56-1) | |
|---|---|
| NOAEL (animal/male, F0/P) | < 1000 mg/kg body weight (Animal: mouse, Animal sex: male) |

STOT-single exposure : Not classified

| methanol (67-56-1) | |
|---|---|
| STOT-single exposure | Causes damage to organs. |

STOT-repeated exposure : Not classified

| ethanol (64-17-5) | |
|---|---|
| NOAEL (subchronic,oral,animal/male,90 days) | < 9700 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents) |

Aspiration hazard : Not classified

| Crystal violet (548-62-9) | |
|---|---|
| Viscosity, kinematic | Not applicable (solid) |

| ethanol (64-17-5) | |
|---|---|
| Viscosity, kinematic | 1.6 mm²/s (20 °C) |

| methanol (67-56-1) | |
|---|---|
| Viscosity, kinematic | 0.68 – 0.747 mm²/s |

| formaldehyde (50-00-0) | |
|---|---|
| Viscosity, kinematic | No data available in the literature |

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : May cause an allergic skin reaction. May stain the skin. None under normal conditions.

Symptoms/effects after eye contact : None under normal conditions.

Symptoms/effects after ingestion : None under normal conditions.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

| Crystal violet (548-62-9) | |
|---|---|
| LC50 - Fish [1] | 0.082 mg/l (96 h, Pimephales promelas, Static system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 0.24 – 0.5 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 0.025 – 0.8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| ErC50 algae | 0.025 – 0.8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Estimated value) |

| ethanol (64-17-5) | |
|---|---|
| LC50 - Fish [1] | 13 mg/l (96 h, Salmo gairdneri, Pure substance) |
| EC50 - Crustacea [1] | 9300 mg/l (48 h, Daphnia magna, Pure substance) |
| EC50 72h - Algae [1] | 275 mg/l (Equivalent or similar to OECD 201, Chlorella vulgaris, Static system, Fresh water, Experimental value, Growth rate) |
| NOEC (chronic) | 9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d' |

| methanol (67-56-1) | |
|---|---|
| LC50 - Fish [1] | 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect) |
| EC50 96h - Algae [1] | 22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate) |
| NOEC (chronic) | 208 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |

| formaldehyde (50-00-0) | |
|---|---|
| LC50 - Fish [1] | 6.7 mg/l (96 h, Morone saxatilis, Static system, Salt water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 5.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia pulex, Static system, Fresh water, Experimental value, Locomotor effect) |
| LC50 - Fish [2] | 62 (62 – 109) mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 72h - Algae [1] | 3.48 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| EC50 72h - Algae [2] | 4.89 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| ErC50 algae | 4.89 – 6.61 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration) |
| NOEC chronic fish | ≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d' |

## 12.2. Persistence and degradability

| Aerospray® Gram Reagent C, Crystal Violet | |
|---|---|
| Persistence and degradability | Not established. |

| Crystal violet (548-62-9) | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

| ethanol (64-17-5) | |
|---|---|
| Persistence and degradability | Biodegradable in the soil, Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.8 – 0.967 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.7 g $O_2$/g substance |
| ThOD | 2.1 g $O_2$/g substance |

| methanol (67-56-1) | |
|---|---|
| Persistence and degradability | Readily biodegradable in the soil, Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.6 – 1.12 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.42 g $O_2$/g substance |
| ThOD | 1.5 g $O_2$/g substance |

| formaldehyde (50-00-0) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.64 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.06 g $O_2$/g substance |
| ThOD | 1.068 g $O_2$/g substance |

## 12.3. Bioaccumulative potential

| Aerospray® Gram Reagent C, Crystal Violet | |
|---|---|
| Bioaccumulative potential | Not established. |

| Crystal violet (548-62-9) | |
|---|---|
| BCF - Fish [1] | 3.8 – 16 l/kg (6 week(s), Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Partition coefficient n-octanol/water (Log Pow) | 1.172 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| ethanol (64-17-5) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -0.35 (Experimental value, Equivalent or similar to OECD 107, 24 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

| methanol (67-56-1) | |
|---|---|
| BCF - Fish [1] | 1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Partition coefficient n-octanol/water (Log Pow) | -0.77 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| formaldehyde (50-00-0) | |
|---|---|
| BCF - Fish [1] | < 1 (1 h, Flow-through system, Salt water, Weight of evidence) |
| Partition coefficient n-octanol/water (Log Pow) | 0.35 (Calculated, KOWWIN, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

### 12.4. Mobility in soil

| Crystal violet (548-62-9) | |
|---|---|
| Surface tension | 44.2 mN/m (1 %) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 5.79 (log Koc, Experimental value) |
| Ecology - soil | Adsorbs into the soil. |

| ethanol (64-17-5) | |
|---|---|
| Surface tension | 22.31 mN/m (20 °C, 100 %) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.2 (log Koc, Experimental value) |
| Ecology - soil | Highly mobile in soil. |

| methanol (67-56-1) | |
|---|---|
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | -0.89 – -0.21 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

| formaldehyde (50-00-0) | |
|---|---|
| Surface tension | 73 mN/m (20 °C, Aqueous solution, 7.5 g/l) |
| Ecology - soil | Not applicable (gas). Toxic to flora. |

### 12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

Other information : Avoid release to the environment.

## SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

Ecological waste information : Avoid release to the environment.

## SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

### 14.1. UN number

Not regulated for transport

### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated

Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

### 14.3. Transport hazard class(es)

**DOT**
Transport hazard class(es) (DOT) : Not regulated

**TDG**
Transport hazard class(es) (TDG) : Not regulated

**IMDG**
Transport hazard class(es) (IMDG) : Not regulated

**IATA**
Transport hazard class(es) (IATA) : Not regulated

### 14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

**DOT**
Not regulated

**TDG**
Not regulated

**IMDG**
Not regulated

**IATA**
Not regulated

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

| Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372. | | |
|---|---|---|
| methanol | CAS-No. 67-56-1 | < 0.1% |
| formaldehyde | CAS-No. 50-00-0 | < 0.1% |

| methanol (67-56-1) | |
|---|---|
| Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 5000 lb |

| formaldehyde (50-00-0) | |
|---|---|
| Listed on EPA Hazardous Air Pollutant (HAPS)<br>Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens<br>Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits | |
| CERCLA RQ | 100 lb |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 100 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 lb |

## 15.2. International regulations

### CANADA

| Crystal violet (548-62-9) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| ethanol (64-17-5) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| methanol (67-56-1) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| formaldehyde (50-00-0) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

### EU-Regulations

No additional information available

### National regulations

| ethanol (64-17-5) |
|---|
| Listed on IARC (International Agency for Research on Cancer)<br>Listed on INSQ (Mexican National Inventory of Chemical Substances) |

| formaldehyde (50-00-0) |
|---|
| Listed on IARC (International Agency for Research on Cancer)<br>Listed as carcinogen on NTP (National Toxicology Program)<br>Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens<br>Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits<br>Listed on INSQ (Mexican National Inventory of Chemical Substances) |

### 15.3. State regulations

**WARNING:** This product can expose you to chemicals including Crystal Violet, which is known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

| Component | State or local regulations |
|---|---|
| ethanol(64-17-5) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |
| methanol(67-56-1) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List |
| formaldehyde(50-00-0) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information : None.

| Full text of hazard classes and H-statements | |
|---|---|
| H220 | Extremely flammable gas |
| H225 | Highly flammable liquid and vapor |
| H301 | Toxic if swallowed |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H330 | Fatal if inhaled |
| H331 | Toxic if inhaled |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |
| H351 | Suspected of causing cancer. |
| H370 | Causes damage to organs. |

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Reason for change: updating to latest format and company header logo.